

Claims

What is claimed is:

1. A method of providing a multilevel quality signal having multiple components, comprising the steps of:

providing a first component of a first signal;

providing a second component of the first signal;

encoding the first component to provide an encoded component; and

combining the second component and the encoded component to provide the multilevel quality signal having a lower quality level component and having therein the encoded component for use in enhancing the quality level of the lower quality level component.

2. A method of providing a multilevel quality signal according to claim 1 wherein the step of encoding the first component includes the step of encrypting the first component.

3. A method as claimed in claim 2 including the step of providing a key for decrypting the encrypted component.

4. A method of providing a multilevel quality signal according to claim 2 wherein access to the first component requires a decryption operation on the encrypted first component.

5. A method of providing a multilevel quality signal according to claim 1, wherein the steps of providing a first component of the first signal and providing a second component of the first signal include a step of separating the first component from the second component of the first signal.

6. A method as claimed in claim 1, comprising the steps of:
sampling the first signal at a predetermined sample rate to generate a plurality of samples, each sample having a predetermined number of bits; and,
separating out a subset of the bits of each sample to provide the first component.

7. A method as claimed in claim 6, wherein the subset is a lower order bit portion of the samples.
8. A method as claimed in claim 5, wherein the first signal is sampled at a sample rate to generate a plurality of samples, each sample having a number of bits and wherein the step of separating the first component from the second component of the first signal comprises the step of separating some samples from the first signal at known intervals.
9. A method as claimed in claim 5 wherein the step of separating the first component from the second component of the first signal depends on predetermined periods of broadcasting of the first signal.
10. A method as claimed in claim 1, comprising the step of providing a high quality level signal for a period of time and simultaneously providing for another period of time the lower quality level component with the encoded first component for use in enhancing the lower quality level of the lower quality component.
11. A method of providing a multilevel quality signal according to claim 1 wherein the multilevel quality signal includes more than two components each further component being encoded and for use in further enhancing the quality level of the lower quality component.
12. A device for enabling provision of a multilevel quality signal having multiple components comprising:
 - a means for separating a first component from multiple components of a first signal;
 - a processor for encrypting the first component and for combining the encrypted first component with at least another component of the first signal to provide the multilevel quality signal having a high quality level and a lower quality level, wherein access to the high quality level of the multilevel quality signal requires a decryption operation on the encrypted first component.

13. A device for enabling provision of a multilevel quality signal according to claim 12 further comprising a sampling means for sampling the first signal at a predetermined sample rate.

14. A device for enabling provision of a multilevel quality signal according to claim 13, wherein the means for separating a first component from multiple components of a first signal includes means for separating a lower order bit portion from a digitised version of the first signal to provide the first component.

15. A device for enabling provision of a multilevel quality signal according to claim 12, wherein the processor includes means for formatting the multilevel quality signal for broadcasting thereof in accordance with predetermined broadcasting parameters.

16. A storage medium having instructions stored therein for generating a multilevel quality signal from a first signal by the steps of:

separating the first signal into at least two components;

encrypting one of the at least two components; and

combining the encrypted component with another component of the at least two components of the first signal to provide the multilevel quality signal having a high quality level and a lower quality level, wherein access to the high quality level of the multilevel quality signal requires a decryption operation on the encrypted component

17. A storage medium according to claim 16 wherein the step of separating the first signal into at least two components comprises the step of sampling the first signal at a sample rate, each sample having a number of bits and separating the low order bits from the sampled signal to provide a low order bit component and a high order bit component forming the at least two components.

18. A storage medium according to claim 16 wherein the step of separating the first signal into at least two components comprises the step of sampling the first signal at a sample rate, each sample having a number of bits and separating the sampled signal into a plurality of samples

forming a first component and a plurality of other samples forming a second other component, the components forming the at least two components.

19. A multilevel quality signal comprising:

a first component for providing a low quality output signal;

a second encoded component for use in enhancing the quality of the low quality output signal,

wherein the first component and the second component together form the multilevel quality signal and wherein decoding of the second encoded component allows for enhancement of the low quality output signal to provide a higher quality output signal therefrom.

20. A multilevel quality signal according to claim 19 wherein the second encoded component is encoded for other than enhancing the quality of the low quality output signal in encoded form.

21. A multilevel quality signal according to claim 20 wherein the multilevel quality signal is compatible with standards for providing at least one of audio and video data without separating the encoded component therefrom.

22. A multilevel quality signal according to claim 21 wherein the second encoded component is encrypted.